

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A mobile communication system comprising:
a base station (1); and
a mobile station (2),
said mobile station (2) receiving control information that notifies said mobile station of transmission of a packet from said base station (1) so that said mobile station (2) can receive the packet,
~~characterized in that~~ wherein said base station (1) comprises:
a base station transmitting/receiving section (13, 19) which transmits/receives the packet to/from said mobile station (2), and
a base station state updating section (16) which notifies said mobile station (2) of transmission/reception state update information that indicates update of a packet receivable state in said mobile station (2), and
said mobile station (2) comprises:
a mobile station transmitting/receiving section (23, 30) which transmits/receives the packet to/from said base station (1), ~~and~~
a mobile station state updating section (28) which sets, on the basis of the transmission/reception state update information, one of an active state in which the control information for packet transmission can be received and a suspend state in which the control information for packet transmission cannot be received, and
a mobile station ID determination section which detects information of a mobile station ID contained in a shared control channel and determines whether the mobile station ID coincides with a reception mobile station ID of said mobile station that has received the shared control channel.
2. (Currently Amended) A system according to claim 1, wherein when said mobile station state updating section (28) receives a change instruction to the active state, said mobile station transmitting/receiving section (23, 30) starts at least one of standby for the packet and transmission/reception of dedicated physical channel data to be transmitted by a dedicated physical channel.

3. (Currently Amended) A system according to claim 2, wherein when said mobile station state updating section ~~(28)~~ receives a change instruction to the suspend state, said mobile station transmitting/receiving section ~~(23, 30)~~ stops at least one of transmission of the dedicated physical channel data and reception of the dedicated physical channel data.

4. (Currently Amended) A system according to claim 1, wherein when said base station ~~(1)~~ is in the suspend state, said base station transmitting/receiving section ~~(13, 19)~~ stops at least one of transmission of dedicated physical channel data and reception of the dedicated physical channel data.

5. (Currently Amended) A system according to claim 1, wherein said mobile station state updating section ~~(28)~~ sets the active state when the transmission/reception state update information cannot be normally received.

6. (Currently Amended) A system according to claim 1, wherein said mobile station ~~(2)~~ further comprises a packet control signal generation section ~~(27)~~ which, when a change instruction to the active state is normally received, transmits to said base station ~~(1)~~ a notification reception confirmation signal that represents notification confirmation information of the packet of the change instruction.

7. (Currently Amended) A system according to claim 6, wherein said packet control signal generation section ~~(27)~~ uses a control signal as the notification reception confirmation signal.

8. (Currently Amended) A system according to claim 6, wherein said packet control signal generation section ~~(27)~~ uses a channel quality indication representing a reception quality of a downlink channel as the notification reception confirmation signal.

9. (Currently Amended) A system according to claim 6, wherein said mobile station ~~(2)~~ further comprises a reception quality control section ~~(25)~~ which measures a reception quality.

10. (Currently Amended) A system according to claim 6, wherein said base station ~~(1)~~ further comprises a packet transmission control section ~~(15)~~ which stops transmitting the packet to said mobile station ~~(2)~~ when no notification reception confirmation signal is received.

11. (Currently Amended) A system according to claim 10, wherein said packet transmission control section ~~(15)~~ transmits a channel quality indication immediately before receiving the transmission/reception state update information, and

said base station state updating section ~~(16)~~ further comprises a priority determination section ~~(16a)~~ which decides the transmission/reception state update information on the basis of a packet transmission priority that is estimated on the basis of the channel quality indication.

12. (Currently Amended) A system according to claim 11, wherein said priority determination section ~~(16a)~~ decides the transmission/reception state update information on the basis of a reliability of the channel quality indication.

13. (Currently Amended) A system according to claim 1, wherein in the active state, said mobile station state updating section ~~(28)~~ monitors the control information for packet transmission/reception.

14. (Currently Amended) A system according to claim 1, wherein said mobile station state updating section ~~(28)~~ notifies said mobile station ~~(2)~~ of the transmission/reception state update information at a predetermined timing set in advance.

15. (Currently Amended) A system according to claim 1, wherein said mobile station ~~(2)~~ further comprises

a user data separation section ~~(24)~~ which separates a reception signal into user information and the control information,

a packet reception determination section ~~(26)~~ which determines on the basis of the control information whether the packet is normally received, and

a signal synthesizing section ~~(29)~~ which synthesizes an input signal.

16. (Canceled).

17. (Currently Amended) A system according to claim 1, wherein said base station (1) further comprises

a user data separation section (14) which separates a reception signal into user information and the control information,

a signal synthesizing section (18) which synthesizes an input signal,

a buffer (17) which temporarily stores the user information, and

a scheduling/transmission mode deciding section (15a) which decides scheduling and a transmission mode on the basis of a channel quality indication.

18. (Currently Amended) A system according to claim 17, further comprising a CRC determination section (91) which determines a CRC added to the user information.

19. (Canceled).

20. (Canceled).

21. (Currently Amended) A ~~mobile communication~~ system according to claim 19, comprising:

a base station; and

a mobile station,

first data being transmitted from said base station to said mobile station using a first channel,

wherein said base station comprises:

a base station state updating section which notifies said mobile station of transmission/reception state update information that indicates update of a first data receivable state in said mobile station, and

a base station transmitting/receiving section which transmits/receives second data transmitted by a second channel, in accordance with a transmission timing of the transmission/reception state update information, and

said mobile station comprises:

a mobile station state updating section which sets, on the basis of the transmission/reception state update information, one of an active state in which control information for transmission of the first data can be received and a suspend state in which the control information for transmission of the first data cannot be received, and

a mobile station transmitting/receiving section which transmits/receives the second data transmitted by the second channel, in accordance with the transmission timing of the transmission/reception state update information,

wherein said base station transmitting/receiving section (13, 19) and said mobile station transmitting/receiving section (23, 30) transmit the second data by using the second channel together with a third channel that transmits the control information,

said mobile station (2) further comprises a DL data determination section (24b) which determines presence/absence of transmission of the second data by using the control information transmitted by the third channel, and

said base station (1) further comprises a UL data determination section (14a) which determines presence/absence of transmission of the second data by using the control information transmitted by the third channel.

22. (Currently Amended) A system according to claim 21, wherein said DL data determination section (24b) and said UL data determination section (14a) use a transport format combination indication representing a structure of the second channel as the information used to determine the presence/absence of transmission of the second data.

23. (Currently Amended) A system according to claim 21, wherein said base station transmitting/receiving section (13, 19) and said mobile station transmitting/receiving section (23, 30) transmit the second data by using the second channel together with the third channel that transmits the control information, and

said base station (8) further comprises a UL data presence/absence determination section (61) which determines presence/absence of transmission of the second data by using a power ratio of the third channel to the second channel.

24. (Currently Amended) A ~~mobile communication system according to claim 19,~~
comprising:

a base station; and

a mobile station,
first data being transmitted from said base station to said mobile station using a first
channel,

wherein said base station comprises:

a base station state updating section which notifies said mobile station of
transmission/reception state update information that indicates update of a first data receivable
state in said mobile station, and

a base station transmitting/receiving section which transmits/receives second
data transmitted by a second channel, in accordance with a transmission timing of the
transmission/reception state update information, and

said mobile station comprises:

a mobile station state updating section which sets, on the basis of the
transmission/reception state update information, one of an active state in which control
information for transmission of the first data can be received and a suspend state in which the
control information for transmission of the first data cannot be received, and

a mobile station transmitting/receiving section which transmits/receives the
second data transmitted by the second channel, in accordance with the transmission timing of
the transmission/reception state update information,

wherein when the second data to be transmitted at the transmission timing of the
second data is not present, said mobile station transmitting/receiving section (23, 30) stops
transmitting at least one of the third channel and the second channel at a predetermined
timing.

25. (Currently Amended) A ~~mobile communication~~ system according to claim 19,
comprising:

a base station; and

a mobile station,

first data being transmitted from said base station to said mobile station using a first
channel,

wherein said base station comprises:

a base station state updating section which notifies said mobile station of
transmission/reception state update information that indicates update of a first data receivable
state in said mobile station, and

a base station transmitting/receiving section which transmits/receives second data transmitted by a second channel, in accordance with a transmission timing of the transmission/reception state update information, and

said mobile station comprises:

a mobile station state updating section which sets, on the basis of the transmission/reception state update information, one of an active state in which control information for transmission of the first data can be received and a suspend state in which the control information for transmission of the first data cannot be received, and

a mobile station transmitting/receiving section which transmits/receives the second data transmitted by the second channel, in accordance with the transmission timing of the transmission/reception state update information,

wherein said base station transmitting/receiving section (13, 19) and said mobile station transmitting/receiving section (23, 30) transmit the second data by using the second channel together with a third channel that transmits the control information,

when the second data to be transmitted is not present, said mobile station transmitting/receiving section (23, 30) stops transmitting at least one of the third channel and the second channel at a predetermined timing, and

said base station (5) further comprises a CQI error detection section (51) which determines presence/absence of transmission of the second data by using an error detection result of at least one of the third channel and the second channel.

26. (Currently Amended) A ~~mobile communication system according to claim 19,~~
comprising:

a base station; and

a mobile station,

first data being transmitted from said base station to said mobile station using a first channel,

wherein said base station comprises:

a base station state updating section which notifies said mobile station of transmission/reception state update information that indicates update of a first data receivable state in said mobile station, and

a base station transmitting/receiving section which transmits/receives second data transmitted by a second channel, in accordance with a transmission timing of the transmission/reception state update information, and

said mobile station comprises:

a mobile station state updating section which sets, on the basis of the transmission/reception state update information, one of an active state in which control information for transmission of the first data can be received and a suspend state in which the control information for transmission of the first data cannot be received, and

a mobile station transmitting/receiving section which transmits/receives the second data transmitted by the second channel, in accordance with the transmission timing of the transmission/reception state update information,

wherein when it is determined that transmission of the second data is not present at the predetermined transmission timing of the transmission/reception state update information, said base station transmitting/receiving section (13,—19) and said mobile station transmitting/receiving section (23, 30) stop receiving at least one of the second channel and the third channel at a predetermined timing.

27. (Currently Amended) A system according to claim 21, wherein each of said base station transmitting/receiving section (13,—19) and said mobile station transmitting/receiving section (23, 30) further comprises a transmitting/receiving section (13, 19, 23,—30) which, in transmitting the second data, continues transmission/reception of the third channel in a unit frame in which the second data has been transmitted even after an end of transmission of the second data.

28. (Canceled).

29. (Canceled).

30. (Currently Amended) A base station comprising:

a transmitting section which transmits control information over a first channel that notifies a mobile station of transmission of a packet so that the mobile station can receive the packet; and

a base station state updating section which notifies the mobile station of transmission/reception state update information over the first channel that indicates update of a packet receivable state in the mobile station, so that the mobile station can receive one or more packets over a second channel,

wherein the transmission/reception state update information is information which sets the mobile station in one of an active state in which the control information for packet transmission can be received and a suspend state in which the control information for packet transmission cannot be received, and

wherein the base station updating section notifies the mobile station of the transmission/reception state update information, irrespective as to a previous point in time when a packet was most recently sent to the mobile station.

31. – 33. (Canceled).